

SVETLANA TECHNICAL DATA

EL34/6CA7

High Performance Audio Power Pentode

The Svetlana™ EL34 is a glass envelope power pentode having a plate dissipation rating of 25 Watts with convection cooling. It is intended for audio frequency power amplification service in either pentode, ultralinear or triode connection and single or push-pull/parallel applications. The Svetlana EL34 has an indirectly-heated oxide cathode, which may be DC operated for the absolute best hum/noise performance.

The Svetlana EL34 plate is made from a laminated material that improves heat transfer and has superior performance under overload conditions which are often seen with guitar amplifiers. Close manufacturing specification tolerances and improved processing provide enhanced reliability and superior sonic performance. The high sensitivity of a pair or quad of Svetlana EL34's is an economical method to achieve high quality sound with a minimum of driving stage components.

The Svetlana EL34 is manufactured with the original Mullard design in the Svetlana factory in St. Petersburg, Russia, and is designed to be a direct replacement for any EL34/6CA7 or equivalent. The Svetlana EL34 gives electrical and audio performance very similar to that of the original Mullard EL34.

Characteristics

Electrical

Heater:	Min.	Nom.	Max.	
Voltage (AC or DC)	5.7	6.3	6.9	V
Current		1.6		A
Cathode:			Oxide-coated, unipotential	
Cathode-to-heater potential, max.			100	V
Direct interelectrode capacitances, max.***				
Grid no.1 to cathode and grid no.3, grid no.2,				
base sleeve and heater			<16	pF
Plate to cathode and grid no.3, grid no.2,				
base sleeve and heater			<0.6	pF
Grid no.1 to plate			<1.1	pF

Mechanical

Operating Position	Any
Base	JEDEC #8ET, octal, 8-pin
Maximum dimensions:	
Height	113 mm (4.45 in.)
Seated height	98 mm (3.86 in.)
Diameter	32 mm (1.26 in.)
Cooling	Convection
Approximate net weight	60 g (2.1 oz.)

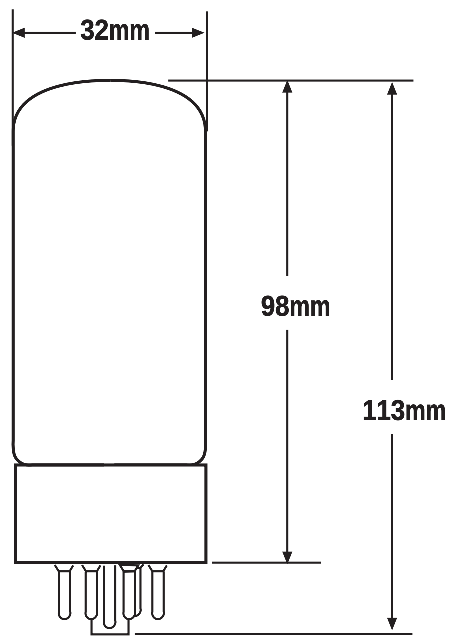
****Without external shielding, nominal values*

AF Power Amplifier

Maximum ratings

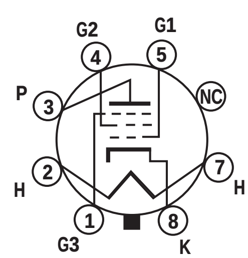
DC plate voltage	800	V
Grid no.2 DC (screen) voltage	500	V
Grid no.1 (control) voltage	-100	V
DC cathode current	150	mA
Plate dissipation	25	W
Grid no.2 DC (screen) dissipation	8	W
Bulb temperature (surface hottest point)	250°	C

Svetlana Outline drawing



Bottom View

Octal Base Connections



Svetlana
ELECTRON DEVICES

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Svetlana
ELECTRON DEVICES

Typical Operation

AF Power Amplifier, Class A1 (single tube)		
Plate Voltage	250	V
Grid 2 Screen Voltage	250	V
Grid 1 Control Voltage*	-14	V
Peak AF Grid 1 Control Voltage	14	V
Zero Signal Plate Current	100	mA
Maximum Signal Plate Current	105	mA
Zero Signal Grid 2 Screen Current (avg)	15	mA
Transconductance (nominal)	11,000	µS
Load Resistance	2000	Ohms
Output Power at 5% distortion	10	W

** Approximate Value (set to zero signal plate current)*

Typical Performance
EL34 Curves

